



Course Syllabus

**Drilling
PTRT 1403**

***** Note to Student *****

Student Success is our number one priority at Coastal Bend College and we realize that prompt, effective communication plays a significant role in achieving that goal. It is vitally important that you have the proper contact information for your instructor. This should include their phone number, email address, and if applicable, their office number, and office hours. If you ever have any problems contacting your instructor, or do not receive a prompt response to your inquiries, please contact the Director of Technical Programs, or the Dean of Workforce, as soon as possible. Their contact information is provided below:

Coordinator of Industrial Workforce: Rolando Chavarria; 361-664-2981 EX 3027; rolandjr@coastalbend.edu
Director of Technical Program, Noemi Aguilar: 361-354-2306; aguilar@coastalbend.edu
Dean of Workforce Programs, Julia Garcia: (830) 569-4222 X1202; jgarcia@coastalbend.edu

- Course Description:** A study of practices and procedures for drilling operations. Rig equipment, casing design, fishing, and proper procedures to successfully drill a well are discussed.
- Semester Hours Credit:** 4
- Lecture/Lab Hours:** Class meets for (3) lecture hours and (3) lab hours per week.
- Prerequisite:** Introductory
- Textbook(s):** Drilling a Straight Hole, 3rd ed., The University of Texas, PETEX, 2000. ISBN: 0-88698-193-X; Catalog #2.20330
Rotary Drilling, 1st ed., The University of Texas, PETEX. ISBN: 0-88698-181-6; Catalog #2.107101
- End-of Course Outcomes:** Students will learn how oil and gas wells are drilled and the practices that are used to drill a well successfully. The student will learn the different parts of drilling rig equipment, and the function of each part. The student will learn how to calculate volumes, hydrostatic pressures, annular velocity, kill mud weights for well control. The student will learn about different sizes of drill pipe, casing, drill bits, and the planning that is done prior to drilling a well successfully. The student will learn different types of drilling fluids that are used in different types of drilling and have an understanding of the



functions of the different types of drilling fluids. The student will learn a basic knowledge of the different type of tests that are done on drilling fluids.

1. The student will learn the parts of a rotary rig and its functions.
2. The student will learn the different parts of blowout equipment and the function of the equipment.
3. The student will learn the planning that goes into successfully drilling an oil and gas well.
4. The student will learn the proper terminology vocabulary of words that are used in the industry.
5. The student will learn different mathematical equations that are used in the Oilfield for drilling a well.
6. The student will learn the different types of drill pipe and casings that are used and have a knowledge of what O.D., I.D., Yield Pressure, Collapse Pressure, Drift I.D. and other values of different sizes of drill pipe and casing.
7. The student will learn how to figure the hole size to drill for the casing design to use in the wellbore that was drilled.
8. The student will learn about wellbore pressures and calculate the proper mud weight to keep the well from blowing out during drilling and during the casings that are run into the hole.
9. The student will learn about different types of mathematical problems associated with the drilling and completing an oil and gas well.
10. The student will become familiar with the steps to start and drill a well from the beginning to the finish and to the completion of a well.

Evaluation Methods:

Will be based on the following criteria:

Tests & Assignments	50%
Lab	25%
Final Exam	25%

A-100-90 Points, B 89-80, C 79-70, D 69-60, F 59 & Below

Student Learning Outcome: Students will learn the people involved in the drilling of an oil and gas well safely and the different people that are needed to perform the task. Students will learn the responsibilities that goes with the math and the well control needed to do the drilling tasks.

ADA Statement: No qualified individual with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits of the services, programs, or activities of the College District, or be subjected to discrimination by the College District. Nor shall the College District exclude or otherwise deny equal services, programs, or activities to an individual because of the known disability of an individual with whom the individual is known to have a relationship or association. 42 U.S.C. 12132; 28 CFR 35.130(g).

See at: [GL \(Legal\)](#)

Special Needs Services: Students with special needs, including physical and learning disabilities, who wish to request accommodations in this course should contact the Student Development Office as soon as possible to make arrangements; this should occur no later than the second week of class or as soon as the student has the documentation



on the disability and requested accommodation per a certified medical or psychological professional. In accordance with federal law, a student requesting accommodations must provide documentation of disability to the Student Development Advisor.

For more information, contact: in Alice at sdalice@coastalbend.edu; Beeville at sdbeeville@coastalbend.edu; Kingsville at sdkingsville@coastalbend.edu; and Pleasanton at sdpleasanton@coastalbend.edu.

Academic Dishonesty: Each student is charged with notice and knowledge of the contents and provisions of Coastal Bend College's rules and regulations concerning student conduct. All students shall obey the law, show respect for properly constituted authority, and observe correct standards of conduct. Scholastic dishonesty shall constitute a violation of these rules and regulations and is punishable as prescribed by Coastal Bend College Policies FLB (Local) and FM (Local). Scholastic dishonesty shall include, but not be limited to, cheating on a test, plagiarism, and collusion.

See at: [FLB \(Local\)](#) and [FM \(Local\)](#).

See the [Student Handbook](#) for further explanation of Scholastic Dishonesty.

Copyright Law and Intellectual Property Rights Policy: Copyright is the right of an author, artist, composer or other creator of a work of authorship to control the use of his or her work by others. Protection extends to literary works, musical works, dramatic works, pantomimes and choreographic works, pictorial and graphic works, sculpture, motion pictures and other audiovisual works, sound recordings and architectural works. Generally speaking, a copyrighted work may not be reproduced by others without the copyright owner's permission. The public display or performance of copyrighted works is similarly restricted. Generally, the unauthorized reproduction, performance or distribution of a copyrighted work is copyright infringement and may subject the infringer to civil and criminal penalties. The Fair Use Doctrine outlines exceptions to this Law and is outlined in Coastal Bend College Policy, [CT \(Legal\)](#).

Coastal Bend College, its faculty, students and employees must comply with Copyright Law. Detailed information on Copyright Law and Intellectual Property Rights is available in Coastal Bend College Policy [CT \(Legal\)](#) and [CT \(Local\)](#).

Questions regarding this information should be directed to the Director of Library Services at: library@coastalbend.edu or the Office of Marketing and Public Relations at: socialmedia@coastalbend.edu.

Intellectual Property: Student /Third Party Works: Rights to copyrightable or patentable works created by a student or a third party, that is, not a College District employee, shall reside with the author/ creator. Detailed information on Copyright Law and Intellectual Property Rights is available in Coastal Bend College Policy [CT \(Legal\)](#) and [CT \(Local\)](#).

Questions regarding this information should be directed to the Director of Library Services at: library@coastalbend.edu or the Office of Marketing and Public Relations at: socialmedia@coastalbend.edu.

NOTE: The College website (www.coastalbend.edu) serves as the main source with the most current version of the Coastal Bend College Board Policies and the Coastal Bend College Catalog.

Coastal Bend College



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